



**RIDOT TMC Unplanned Incident Statistics and Performance Measures
Annual Report
1/1/2008 To 12/31/2008**

The Rhode Island transportation system serves 39 cities and towns, encompassing rural, metropolitan, and tourist areas. The Rhode Island Department of Transportation's Transportation Management Center (RIDOT TMC) has been addressing the problem of increasing congestion in Rhode Island by informing the traveler of crashes and unusual delays. In doing so, the TMC has provided measurable benefits to the transportation system, and has developed the technology and institutional awareness necessary to expand the Intelligent Transportation Systems (ITS) Program (called RhodeWays) to the benefit of Rhode Island travelers.

The RIDOT TMC maintains detailed statistics on incidents that we manage from our center. Because the data are entered by our TMC Operators, the statistics are dependent on what we can observe on the roadways with our equipment. Review and compilation of these statistics is part of our ongoing Performance Measurement effort. Through this effort, we are quantifying the benefits of the ITS program in our state, and are also able to monitor improvements in the efficiency and effectiveness with which we manage roadway incidents. By making these statistics available to you on a monthly basis, we hope that you can learn more about the program and understand the benefit of the service we provide to the Rhode Island motoring public.

These periodic reports represent statistics for unplanned incidents on Rhode Island's roadways. The types of incidents included in the report include disabled vehicles, debris on the roadway, emergency roadwork, and vehicle accidents, including jack-knifed trucks and vehicle spinouts. Additionally, a category exists for congestion delays that are outside of typical recurring congestion. The TMC does assist in information dissemination for planned events (such as construction) as well, but those types of events are not included in the statistics. Also, abandoned vehicles are not included since they tend to skew the statistics.

We hope you find this report interesting and that it helps in understanding the significant benefit that the RhodeWays program provides to the people who travel Rhode Island's roadways every day. Also, please remember to check the TMC website frequently for updates (<http://www.tmc.state.ri.us>), including construction and incident information.

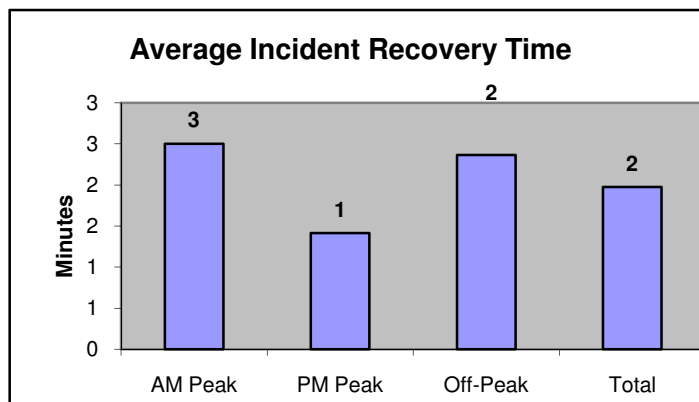
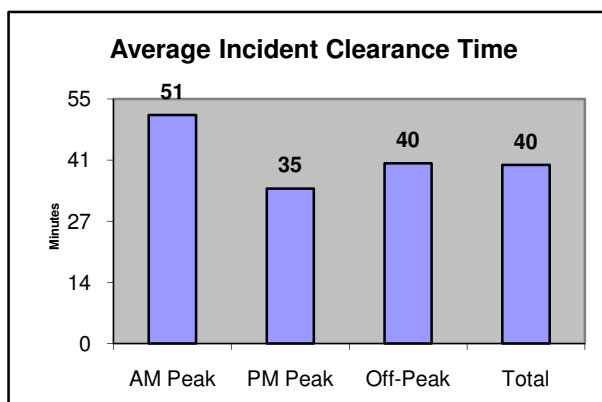
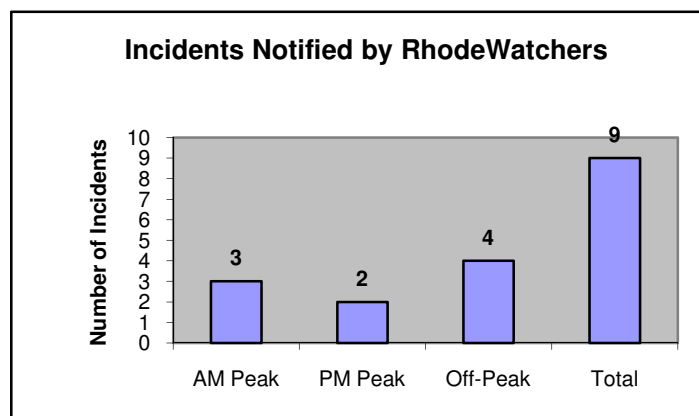
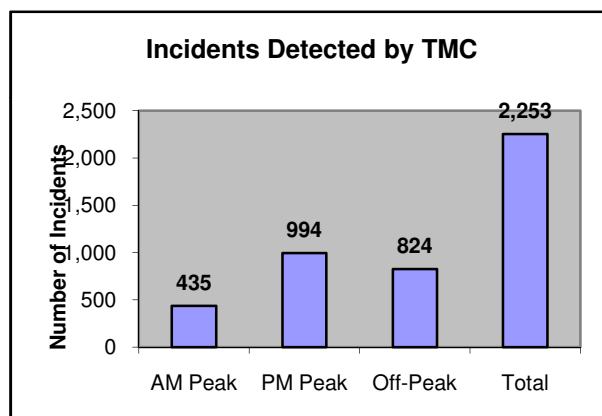
RIDOT TMC Unplanned Incident Statistics and Performance Measures Report

1. Peak Period Incident Statistics*

	AM Peak	PM Peak	Off-Peak	Total
Number of Incidents	469	1039	872	2380
Avg. Incident Duration (hr:min)	54	36	43	42
Avg. Incident Clearance Time (hr:min)	51	35	40	40
Avg. Incident Recovery Time (hr:min)	3	1	2	2
# Detected by TMC Operators (CCVE)	240	320	472	1032
# Detected by TMC, State Police	195	674	352	1221
# Notified by RhodeWatchers	3	2	4	9
# of Messages Posted VMS	36	79	62	177
# of Messages Posted DMS	242	512	477	1231
# of Messages Posted HAR	153	216	297	666
# of Messages posted Web	424	930	721	2075
Avg. Delay Cost**	\$227,716	\$152,984	\$181,288	\$178,081
Total Delay Cost	\$106,799,000	#####	\$158,083,486	\$423,833,110

* AM Peak: 6:00AM to 10:00 AM, PM Peak: 3:00PM to 7:00PM, Monday - Friday

** Delay Cost is a function of incident duration, volume on the roadway, delay per person, and cost per hour of delay for both commercial and personal vehicles. Average delay cost includes only incidents with a lane blockage and represents average cost per incident.



Note: Statistics in this report are only for incidents that the TMC reported or responded to. They do not include all incidents that occurred on Rhode Island roadways

Incident Clearance Time is the time from the start of an incident (or when it is detected) to the time it is cleared from the roadway.

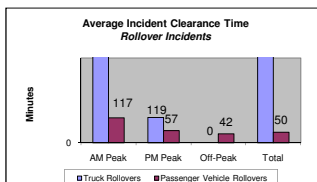
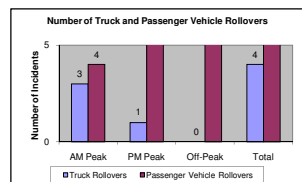
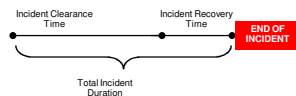
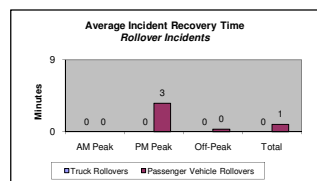
Incident Recovery Time is the time it takes for the roadway to be rid of residual delay following incident clearance. It is based on TMC Operator observation.



2. Rollover Incident Statistics*

VEHICLES	Trucks				Automobiles			
	AM Peak	PM Peak	Off-Peak	Total	AM Peak	PM Peak	Off-Peak	Total
No. of Rollovers	3	1	0	4	4	12	44	60
Avg. Incident Duration (min)	1825	119	0	1399	117	61	42	51
Avg. Incident Clearance Time (min)	1825	119	0	1399	117	57	42	50
Avg. Incident Recovery Time (min)	0	0	0	0	0	3	0	1

* AM Peak: 6:00AM to 10:00 AM. PM Peak: 3:00PM to 7:00PM. Monday - Friday

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3. Incidents by Severity Level

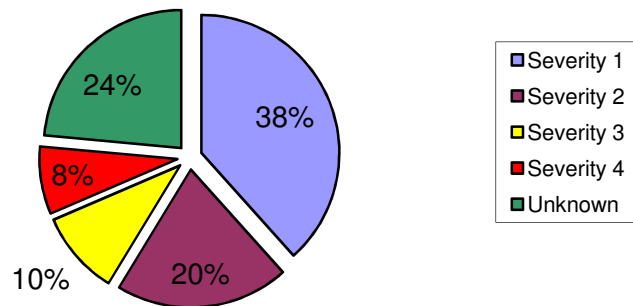
Severity Level*	No. of Incidents
Severity 0	816
Severity 1	600
Severity 2	318
Severity 3	154
Severity 4	124
Unknown	368
Total	2380

Number of Incidents with a Secondary Incident:

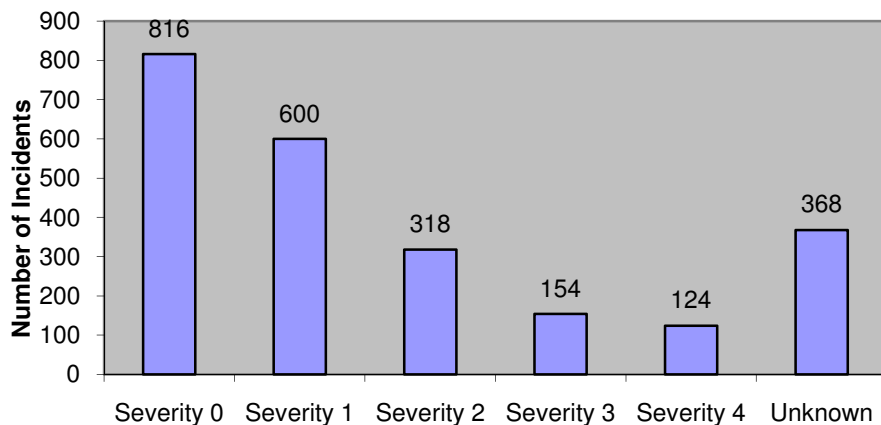
Percentage of Incidents with a Secondary Incident:

Note: A "secondary" incident is one that is the result of an earlier incident.

Percent of Incidents by Severity Level



Number of Incidents by Severity Level



*Definition of Incident Severity Levels:

Severity 0: No injuries and no travel lanes blocked

Severity 1: 1/4+ travel lanes blocked with no injuries OR median/shoulder closed with injuries

Severity 2: 1/3 or 2/4+ lanes blocked OR Fire w/ 0 lanes closed OR Hazmat w/ 0 lanes closed

Severity 3: 1/2 or 2/3 or 3/4+ lanes blocked OR Fire w/ 1/3 or 2/4 lanes closed OR

Hazmat w/ 2/4 lanes closed

Severity 4: All travel lanes blocked OR fatality OR Hazmat w/ clean-up OR Fire w/ 1/2, 2/3, 3/4 lanes closed

OR Structural damage w/ 1/3, 2/3+ lanes closed

Unknown: Incidents without a recorded severity level

Note: For travel lanes blocked terminology, "1/4" indicates 1 out of 4 lanes blocked

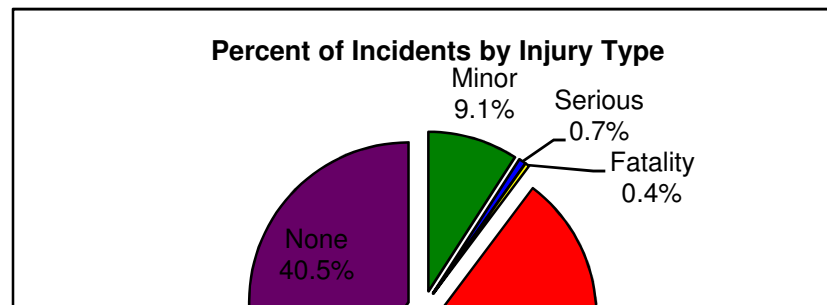
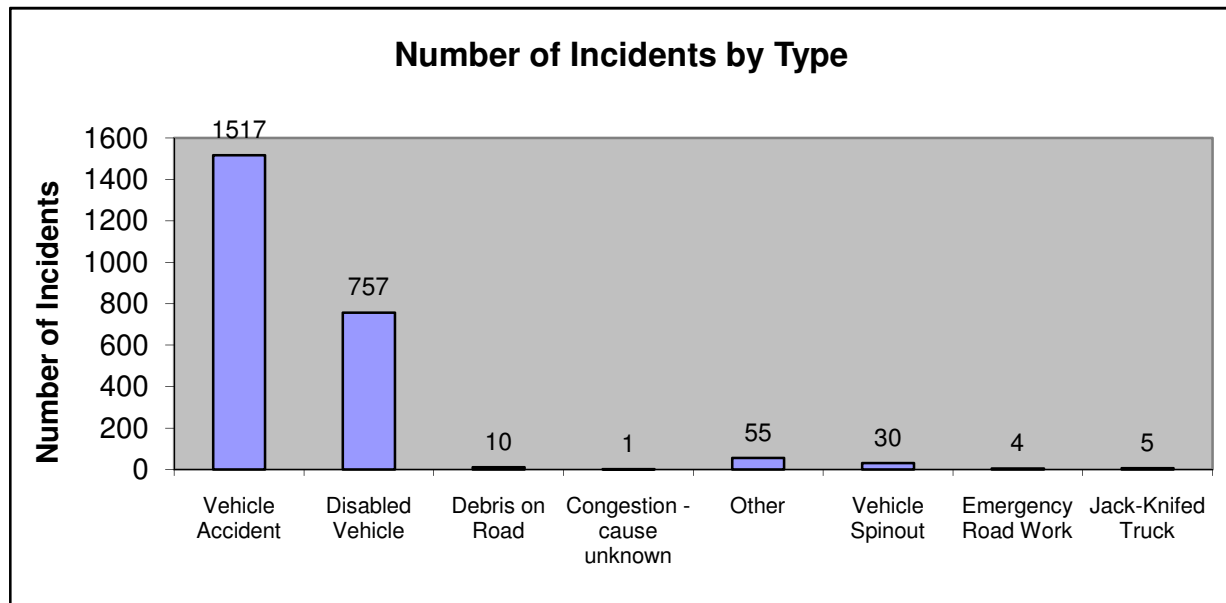


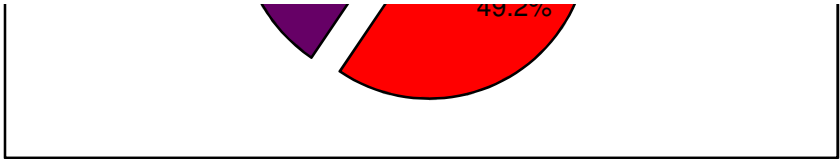
4. Incidents by Type

Incident Type	No. of Incidents
Vehicle Accident	1517
Disabled Vehicle	757
Debris on Road	10
Congestion - cause unknown	1
Other	55
Vehicle Spinout	30
Emergency Road Work	4
Jack-Knifed Truck	5
<i>Total Number of Incidents</i>	<i>2379</i>

5. Incidents by Injury Type

Injury Type	No. of Incidents
Minor	217
Serious	17
Fatality	10
Unknown	1171
None	965
<i>Total</i>	<i>2380</i>





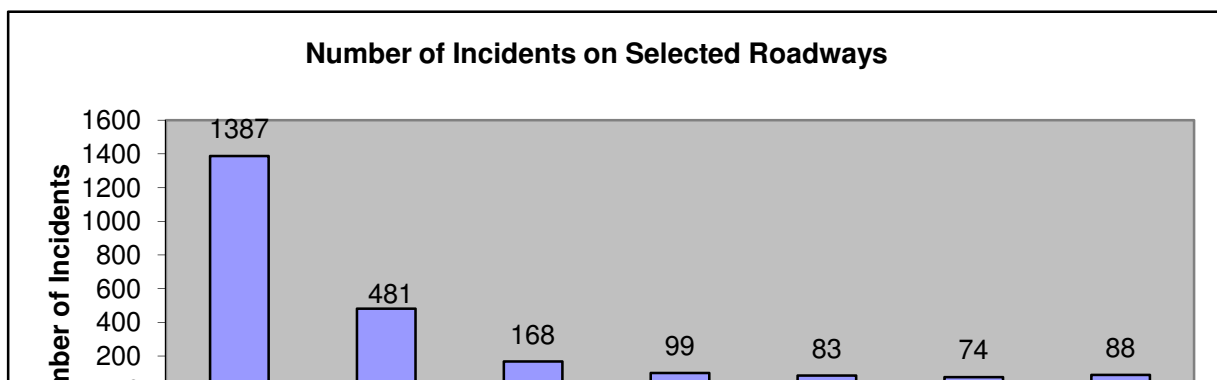
6. Incidents by Pavement and Weather Conditions

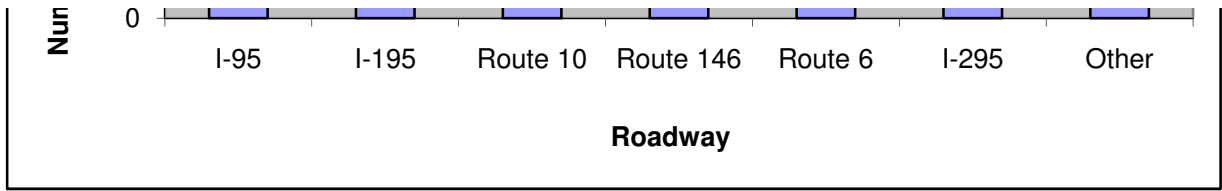
Pavement Condition	No. of Incidents
Dry	1769
Wet	532
Icy	27
Snow-Covered	49
Flooded	2
Other	1
<i>Total</i>	<i>2380</i>
Precipitation	
None	1919
Light-moderate rain falling	352
Heavy rain falling	46
Light-moderate sleet falling	6
Heavy sleet falling	2
Light-moderate snow falling	28
Heavy snow falling	27
<i>Total</i>	<i>2380</i>
Wind	
Calm to Moderate	2245
Moderate to Strong	109
Gusts over 50 mph	1
Gusts over 75 mph	0
Hurricane	2
Other	12
N/A	11
<i>Total</i>	<i>2380</i>
Visibility	
Clear	1983
Light fog	66
Dense fog	3
Reduced- rain	248
Reduced-snow	33
Poor-heavy rain/sleet	13
Poor-heavy snow	22
Reduced-smoke	0
Other	2
N/A	10
<i>Total</i>	<i>2380</i>

7. Incidents Detected by Primary Notifier on Selected Roadways

Roadway	Primary Notifier	No. of Incidents
I-195	TMC Operator	223
	State Police Scanner	98
	Local Fire Department	3
	Rhode Watcher	1
	Media/MetroNetworks	7
	Traffic.com	0
	TMC State Police	0
	Transcom	2
	Other	147
	Total	481
I-95	TMC Operator	665
	State Police Scanner	316
	Local Fire Department	3
	Rhode Watcher	6
	Media/MetroNetworks	9
	Traffic.com	0
	TMC State Police	0
	Transcom	10
	Other	378
	Total	1387
I-295	TMC Operator	13
	State Police Scanner	30
	Local Fire Department	2
	Rhode Watcher	2
	Media/MetroNetworks	1
	Traffic.com	0
	TMC State Police	0
	Transcom	0
	Other	26
	Total	74

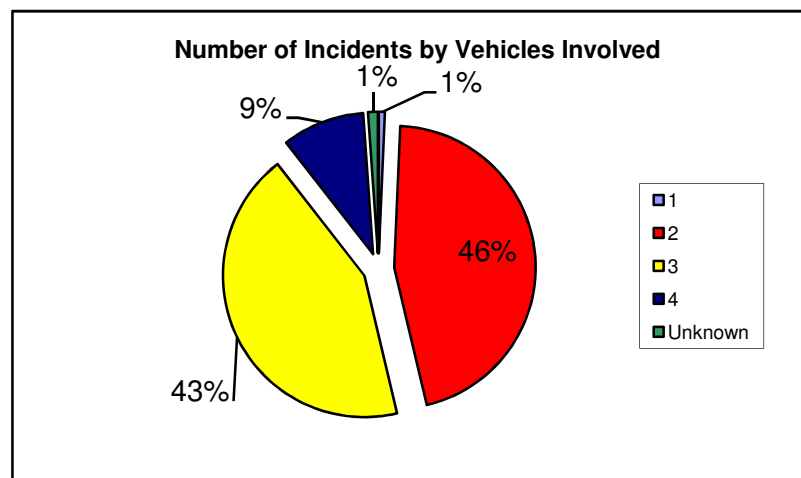
Roadway	Primary Notifier	No. of Incidents
Route 10	TMC Operator	61
	State Police Scanner	49
	Local Fire Department	1
	Rhode Watcher	0
	Media/MetroNetworks	3
	Traffic.com	1
	TMC State Police	0
	Transcom	0
	Other	53
	Total	168
Route 146	TMC Operator	22
	State Police Scanner	32
	Local Fire Department	1
	Rhode Watcher	0
	Media/MetroNetworks	1
	Traffic.com	0
	TMC State Police	0
	Transcom	0
	Other	43
	Total	99
Route 6	TMC Operator	26
	State Police Scanner	30
	Local Fire Department	0
	Rhode Watcher	0
	Media/MetroNetworks	1
	Traffic.com	0
	TMC State Police	0
	Transcom	2
	Other	26
	Total	85





8. Incidents by Number of Vehicles Involved

No. of Vehicles Involved	No. of Incidents
1	16
2	1049
3	993
4	216
5	65
6	13
7	1
8	1
9	0
10+	0
Unknown	26
Total Incidents	2380

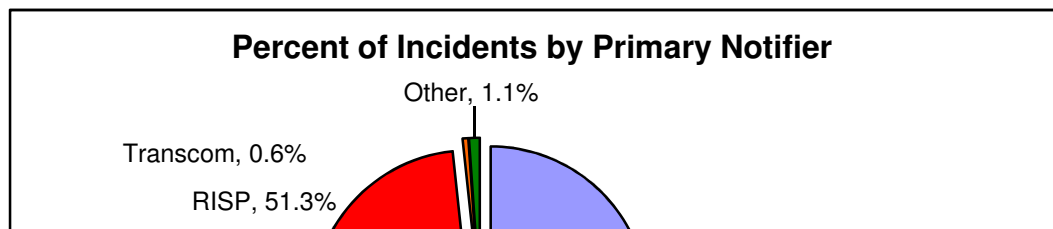


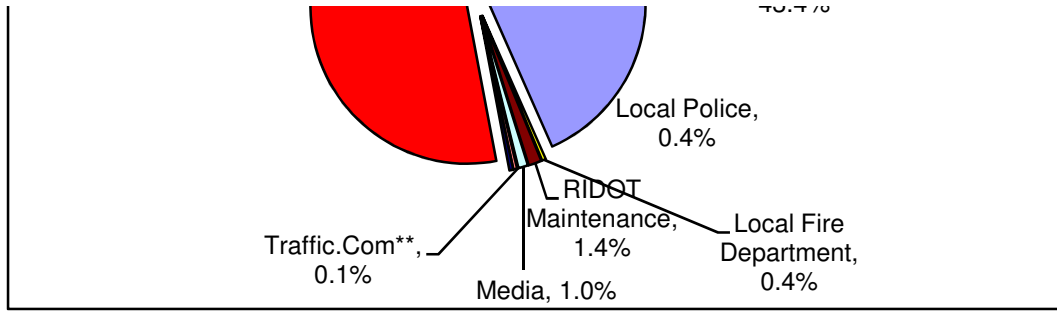
9. Incident Notification

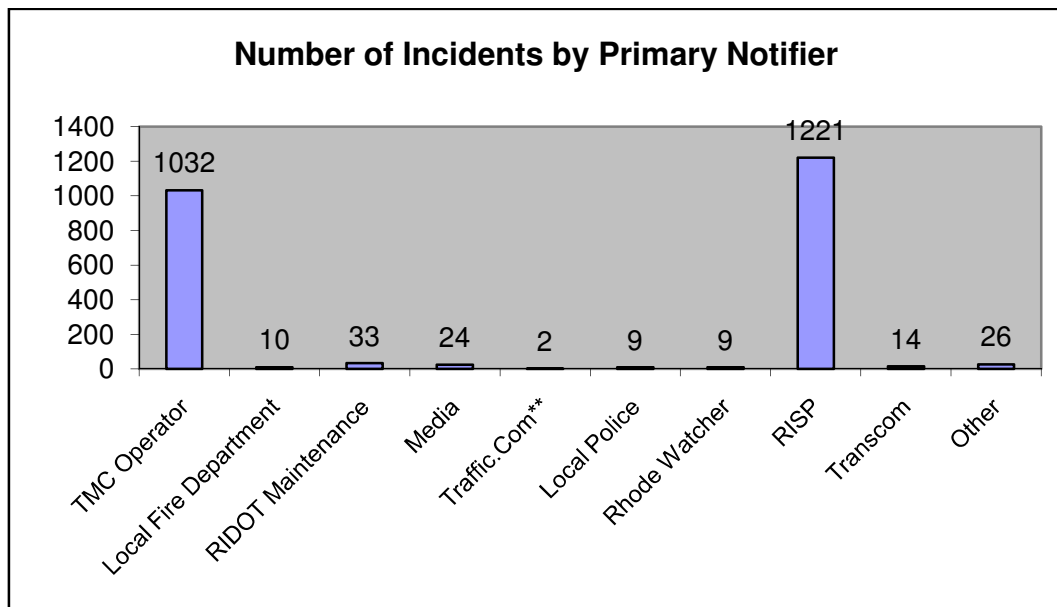
Primary Notifier*	No. of Incidents
TMC Operator	1032
Local Fire Department	10
RIDOT Maintenance	33
Media	24
Traffic.Com**	2
Local Police	9
Rhode Watcher	9
RISP	1221
Transcom	14
Other	26
Total	2380

*First notifier of the incident to TMC

**Formerly Mobility Technologies

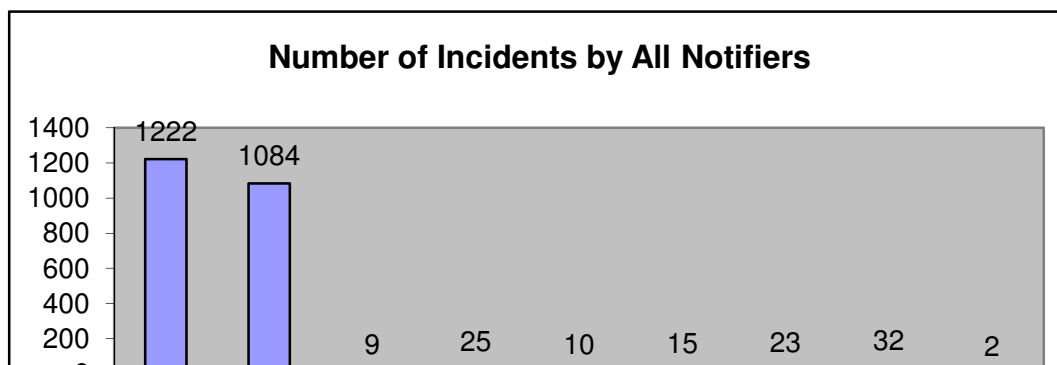






Notifier	No. of Incidents
RISP	1222
TMC Operator	1084
Rhode Watcher	9
Media	25
Local Police	10
Local Fire Department	15
Other	23
RIDOT Maintenance	32
Traffic.Com**	2
Transcom	12

Note: Primary notifier indicates the first notifier of the incident to the TMC. Additional notifiers are also logged, and are represented in the statistics for "all notifiers".





10. Incident Response

On-Scene Responding Agency	No. of Incidents	Percent of Total Incidents
State Police	1870	78.57%
Tow	719	30.21%
Local Fire Department	485	20.38%
EMS	454	19.08%
Local Police	163	6.85%
Service Patrol	96	4.03%
Mass Highway	2	0.08%
DOT	42	1.76%
Hazmat	2	0.08%
DEM	3	0.13%
Connecticut DOT	1	0.04%
Construction	1	0.04%
Coast Guard	0	0.00%
Department of Health	1	0.04%
K-9	0	0.00%
RIPTA	0	0.00%

	# of Incidents
# Involved Equipment(HAR,VMS or CCVE)	1377
# of VMS Messages	177
# of DMS Messages	1231
# of HAR Messages	666
# of Web Messages	2075

Note: Numbers and percentages in upper table indicate how many of the incidents during the month were responded to by the agency indicated. Note that multiple agencies may respond to an incident, so percentages do not add up to 100%.

